

# Notice of Allowability

Application No.

10/034,185

Examiner

MANSOUR M. SAID

Applicant(s)

HA, YONG MIN

Art Unit

2629

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 4/25/06.
2. ☒ The allowed claim(s) is/are 1-7.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). \_\_\_\_\_.

\* Certified copies not received: \_\_\_\_\_.


Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
RICHARD HJERPE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600  
Part of Paper No./Mail Date 20060703

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 1-7 are allowed.
2. The following is an examiner's statement of reasons for allowance: Claims 1-7 are allowed since certain key features of the claimed invention are not taught or fairly suggested by prior art. **In claims 1 and 5, “wherein the selection signal selects an appropriate converter of the plurality of digital to analog converters to be driven according to the number of bits corresponding to the gray level”**. The closest prior art Waterman (6,850,218 B2) teach a plurality of digital-to-analog converters (DACs) are coupled to the LCD matrix through analog voltage switches and are adapted to produce output voltages that area applied to the pixels in the LCD matrix; Yoshida (2004/0075633 A1) teaches a plurality of D/A converters each provided with a means for storing digital data for correcting offset value and an operation means for adding or subtracting the digital data for offset value correction; Sekine (6,661,401 B1) teaches an LCD, includes, for each of liquid crystal display systems for RGB, and coupled in the named order, a ACD circuit for converting an analog signal from a signal source of a video signal for a display into digital signal, however, singularly or in combination with other prior art, fails to anticipate or render the above underlined limitations obvious.
3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Waterman et al. (6,744,415 B2, filed 7/25/01) teach plurality DAC (digital analog converter) receive multi-bit input and generates its output voltage to correspond to the digital input.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mansour M. Said whose telephone number is 571-272-7679. The examiner can normally be reached on Monday through Thursday from 8:30-6:00 P.M. The examiner can also be reached on alternate Friday from 8:30 a.m. to 5:00 p.m. EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe whose telephone number is 571-272-7681.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to: 571-273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to the Customer Service Window at the Randolph Building, 401, Dulany Street, Alexandria, VA 22314.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be

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obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**Mansour M. Said**

July 5, 2006



**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**